

# MANUFACTURING EXTENSION PARTNERSHIP

## Success Stories from the Field

### U S Felt Manufacturing Inc

#### Maine Manufacturing Extension Partnership

#### US Felt Manufacturing, Inc. Reduces Energy and Environmental Costs□

##### Client Profile:

US Felt Manufacturing is an innovative manufacturer and fabricator of nonwoven fabrics, felt and composite materials. For over 30 years they have produced felt products using both wet and dry processes. Their products are used in a wide variety of applications in household appliances, military ordinance, automobiles, and industrial equipment. The Sanford, Maine facility currently employs 30 people.

##### Situation:

In late 2008 and early 2009, US Felt was experiencing a downturn in sales. Their processes costs were considerable due to the large amount of steam, air and electricity required. In an effort to reduce facility costs, the company cut back to a four-day work week. The management team had also identified ineffective front end procedures, felt scrap waste disposal problems, and inefficient manufacturing processes as targets for improvement efforts. US Felt called on the Maine Manufacturing Extension Partnership (Maine MEP), a NIST MEP network affiliate, for help.

##### Solution:

Maine MEP met with the management team and proposed a Lean Energy Pilot program to train employees in Lean awareness, Value Stream Mapping (VSM), and perform Kaizen events. The wet side process, which accounts for 80 percent of company's revenue, was selected for a VSM. There was an overarching focus on energy and environmental waste during all the improvement events. An outside energy consultant provided an energy audit to assist in energy waste identification, and a professional from environmental services focused on improvements related to the environment. A Kaizen of the front end process resulted in a 25 percent reduction in redundant paperwork, a 15 percent reduction in work order errors, and a reduction in work order corrections from 30 percent to 3 percent. The felt waste stream has been reduced by 50 percent. An energy audit of the office and manufacturing areas helped identify savings in lighting of up to \$2,200 per year. The lean manufacturing, energy conservation and environmental focus on the mechanical felt manufacturing process resulted in projected savings of up to \$30,000 per year. These savings opportunities including fixing air compressor leaks, recycling and reducing felt scrap, and the reduction of natural gas and electrical usage are based on implementing a more efficient boiler system, material dryer and electricity saving devices.

##### Results:

\* Projected savings of \$30,000 per year.

##### Testimonial:

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"This project has played a significant role in helping us to work as a team to focus our current operations while improving our cost effectiveness for the future."

Vin Boragine, President